Remarks: Claims 1-7 and 16-20 are in condition for allowance

This is in response to the Office action dated April 4, 2008, in which claims 1-7 and 16-20 were pending and were rejected. With this response, the applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-7 and 16-20 and allowance of these claims in light of the remarks herein.

Paul, Dickie, and Spencer do not make obvious claims 1-7 and 16-20:

I. Paul, Dickie, and Spencer do not disclose or suggest all the elements of claims 1-7 and 16-20

In sections 4-13 of the Office action, claims 1, 2, 4, 5, 17, and 19 were rejected under 35 U.S.C. §103(a) with reference to Paul et al. (U.S. Patent No.6,466,972) and Dickie et al. (U.S. Patent No. 4,775,931). In sections 8-14 of the Office action, claims 3, 6, 7, 18, and 20 were rejected under 35 U.S.C. §103(a) with reference to Paul, Dickie, and Spencer (U.S. Patent No. 6,044,225). The applicants respectfully submit that the combination of Paul and Dickie does not disclose or suggest all the elements of any of claims 1, 2, 4, 5, 16, 17, and 19, and the combination of Paul, Dickie and Spencer does not disclose or suggest all the elements of any of claims 3, 6, 7, 18, and 20.

For example, claim 1 recites in part, a device hardware abstraction software layer adapted to configure multiple instantiations of a peripheral device within an integrated circuit. The Office action asserts that this is disclosed by subject matter of Paul that discloses that machine classes, that are instantiated with machine-specific information, can be stored in a database. The machine classes of Paul constitute configuration information for controlling multiple outside computers. The machine classes themselves do not constitute multiple instantiations of a peripheral device, and the multiple outside computers are not within an integrated circuit. Even the machine classes are disclosed only to be stored in a database, which is very different than being within an integrated circuit. Storing configuration information for remote computers in a database does not constitute disclosure or suggestion of multiple instantiations of a peripheral device within an integrated circuit.

As for the other cited reference, Dickie discloses writing base addresses for peripheral devices in a configuration register for a CPU. This is very different from defining offset values for registers of the peripheral device. Dickie makes no mention of offset values for registers, only of writing and removing base addresses themselves. The base addresses in Dickie are defined for the CPU itself, and therefore in the hardware, and are not being defined by a hardware abstraction software layer. Furthermore, Dickie refers to devices peripheral to a CPU, such as a display or a printer. In contrast, claim 1 recites, in part, multiple instantiations of a peripheral device within an integrated circuit. The devices peripheral to a CPU in Dickie do not disclose or suggest subject matter relating to multiple instantiations of a peripheral device within an integrated circuit. Additionally, neither of the references mentions a hardware abstraction software layer of any kind.

The applicants therefore respectfully submit therefore that claim 1 recites many elements that are not disclosed or suggested by the combination of Paul and Dickie, and that this is true also of claims 2-7 due at least to their incorporation by dependency of the subject matter of claim 1, and of claims 16-20 due at least to elements thereof that are analogous to those of claim 1 as discussed above.

Paul, Dickie, and Spencer do not make obvious claims 1-7 and 16-20:
II. There was no proper reason to combine Paul, Dickie, and Spencer

In addition to the fact that many individual elements of the claims are not disclosed or suggested by the combined references, there was also no valid motivation or reason why someone of ordinary skill in the art would have been prompted to combine the disclosures of Paul, Dickie, and Spencer. Paul deals with a server that manages the configuration of remote computers on a network. Dickie deals with a CPU that is enabled to reconfigure identification registers for devices peripheral to the CPU, for a single computer. Spencer deals with managing multiple parallel data streams for multimedia applications. Accordingly, the U.S. classifications and fields of search for all three references are entirely non-overlapping.

Even if the combined cited references were to disclose or suggest all the elements of the present claims, the invention is not obvious unless there also would have been, at the time the invention was conceived, a motivation or reason for a person of ordinary skill and creativity in the art to have combined the elements disclosed or suggested by those references in the way recited in at least the independent claims. The applicants respectfully submit that the proposed reasons to combine provided in the Office action clearly exceed the scope of reasons to combine provided by the Supreme Court in *KSR International Co. v. Teleflex Inc.* (*KSR*), 550 U.S. ___, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007), and that there was no sufficient motivation or reason to combine Paul with Dickie or with Spencer. This provides an additional and independent rationale for withdrawing the rejection of all of claims 1-7 and 16-20 under §103.

In particular, the Supreme Court in *KSR* said a person of ordinary skill in the art (POSA) "has good reason to pursue the known options within his or her technical grasp" when "[1] there is a design need or market pressure to solve a problem and [2] there are a finite number of identified, predictable solutions" (*KSR*, slip op. at 17; 82 USPQ2d 1385, 1397). The Court of Appeals for the Federal Circuit has since interpreted the second element of this to mean "a finite, and in the context of the art, small or easily traversed, number of options", where subject matter outside that small, easily traversed number of options does not "support an inference of obviousness". *Ortho-McNeil Pharma. v. Mylan Labs*, slip op. at 9-10, 86 USPQ2d 1196, 1201 (Fed. Cir. 2008). In *Ortho-McNeil*, the Federal Circuit found the claimed invention non-obviousness at several levels, where a POSA would not even have been likely to start where the inventor did, the POSA also faced too many unpredictable variables without a given reason to select among them as the inventor had, and the POSA would have had to explore properties far afield from the inventor's initial purpose.

In this case, the three cited references do not represent a small or easily traversed number of identified, predictable options for solving a single problem. Instead, they represent disparate pursuits of solutions to problems in several, widely divergent fields. As in the facts behind *Ortho-McNeil*, a person of ordinary skill in the art of any one of the cited references would have faced too many unpredictable options without any advance reason for investigating each of the fields of the three references, including configuration of remote computers on a network, reconfiguring

identification registers for devices peripheral to a CPU in a single computer, and managing multiple parallel data streams for multimedia applications. These references address a wide variety of problems far afield from the subject matter of the present claims. A person skilled in the art also would have had no advance reason to discover and cherry-pick the claimed elements out of each of these disparate references.

The Office action asserts that the rationale for combining the cited references for claim 1 would have been to take advantage of effectively communicating with peripheral devices to the said system. However, this assertion that a person in the art would have desired a generalized effectiveness, does not indicate why such a person in the art specifically might have been prompted to investigate and combine the subject matter of the cited references. It also does not indicate how a desire for effectively communicating with peripheral devices would have translated into a small or easily traversed number of identified, predictable options that would have included the cited references. Additionally, as indicated above, neither of these references discusses multiple instantiations of a peripheral device within an integrated circuit, so even a person skilled in the art given the benefit of the asserted motivation and with the cited references in hand, would not have been able to arrive at the subject matter of the present claims.

Therefore, the applicants respectfully submit that, even if the cited references disclosed or suggested all the elements of any of the present claims, the proposed reasons for combining the cited references far exceed the proper scope of reasons to combine under the controlling precedents of *KSR* and *Ortho-McNeil*, and do not support a valid showing that claims 1-7 and 16-20 are obvious.

The applicants therefore respectfully submit that Paul, Dickie and Spencer do not disclose or suggest the subject matter of claims 1-7 or 16-20 of the present application. The applicants therefore respectfully request that the rejection of claims 1-7 and 16-20 be reconsidered and withdrawn.

No narrowing interpretations implied

The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered exhaustive of the facets of the invention which are rendered patentable, being only examples of certain novel features and differences, which the applicants have opted to comment on as illustrative examples.

Furthermore, in commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the references and particular subject matter of the present application may have been commented on, even though such differences do not appear in all of the claims. It is not intended by commenting on any such distinctions to create any implied limitations in any particular claims of the present application.

Conclusion: Claims 1-7 and 16-20 as amended are in condition for allowance

In light of the discussion herein, the applicants respectfully request that the rejection of claims 1-7 and 16-20 be reconsidered and withdrawn and that these claims be allowed.

The Director is authorized to charge any fee deficiency required by this paper or by any paper in the prosecution of this application or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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